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Temporal ecologies: multiple times, multiple spaces and complicating space times

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It has become rightly *de rigeur* for critical geography to talk of spacetime as linked together. What the papers gathered here also show is that handy linking into one term is if useful and important also, in someways, a chaotic conceptualisation. In one sense this is because space and time interact in a multitude of ways –whose complex patterning this special issue does so much to illustrate. In a rather deeper sense it is because the terms space and time actually convey many different senses. The question this collection of papers raises is what kind of ‘time’ is seen interacting with what kind of ‘space’ when we talk of spatio-temporal geographies. What kinds of times, what kinds of spaces and what resulting timespaces do we see in these critical geographies? The timing and placing of events often reveal issues of power and inequality for sure. But I want to suggest we can indeed see in these papers how power is etched into the kinds of times and spaces that organise events and through which events unfold. If it is commonplace to follow Lefebvre’s (1991, page 334) argument that social conflict and power are not just a matter of social relations and contradictions *in* space but *of* space, then the same must apply to time and by extension the forms of timespace. What is clear is the plurality of possibilities that are presented in the papers for how these combinations work.

In this discussion there is not time to lay out an exhaustive account of the possible permutations of spaces times and spacetimes. There are in fact competing attempts to produce lists of these and the permutations (such as Dodgshon’s (2008) salutary listing³⁷ different facets traced back into various approaches within geography). So this must be a more strategic intervention to tease out a few key lines from these papers. Adam (2003) points to four ‘c’s structuring concerns in social studies of time- the commodification of time, the control of times, the colonisation of the future and the creation of time to human design. These give us a way in to look at some of the constellations revealed within and between the papers.

We might start with the most familiar sense of locating events in time and space through time geography. Classically this approach has been underpinned by a notion of abstract space and abstract time. This then is the world of where space becomes reduced to coordinates of location east-west and north-south which gives rise to infinitely divisible and exchangeable units in an infinitely open series ($x_1, x_2, x_3, \dots x_n, y_1, y_2, y_3 \dots y_n$). Thus locations differ only by placement in the series and they can be ever more finely sub-divided into smaller components, or indeed added together to form larger units. The only change is quantity. It drains out all substantive content from space and replaced it with empty, exchangeable units of measurement. What this facilitated was the rapid commodification of land – with standard plot sizes and multiples of plot sizes, identified by unique location in the grid. At a grand scale we can think of the mapping of the west of the USA

where, beyond route 277 in Ohio, land was marked out for potential homesteads, settlements and townships from great sweeping meridians charted across the land with such regularity that it was compared to graph paper (Linklater 2002, page 178). To this abstract, geometric spaces we can add temporal ones in an equally infinite and empty series ($t_1, t_2, t_3, \dots t_n$). As Hall (1983, page 84) puts it taken for granted Anglo-European time is similarly 'an empty container waiting to be filled.' It is important to point out that in this we are mistaking the measurement for what is measured – that we are using spatial terms to understand time as Grosz (among others) has so cogently argued and that we are thus replacing a sense of time as flow with one that depends of a series of stationary 'nows' as Bergson pointed out more than a century ago (debates which are rehearsed in Crang 2005). These senses of space and time are deeply connected with colonisation and commodification which provides an entry point for thinking of critical timespace studies.

Timespace here becomes a resource to be measured and deployed, bought and sold. It is salutary to think of social inequalities through this form of temporality when *prima facie*, time is perhaps the only resource distributed equally on the planet every day. Wealth is massively uneven; our share of love and care may vary, our bodily capacities are varied and change over time. But we all get 24 hours each and every day. Given that the actual inequalities evident are even more striking. So critical timespace studies might look at the inequalities of this resource. Bowlby's study contributes to analyses of the 'temporal welfare state' as a system of allocating time as much as anything (Goodin, Parpo, and Kangas 2004). It firstly points to who has control in terms of the amount of time spent caring, in a neoliberal system of market provision where that is a commodity to be purchased. But it goes on to open out other dimensions. The second is the colonisation of the future, where care is traded amongst generations and care now is an investment in later returns. It also points to how time is not of a piece over our life course. We may receive an equal amount each day, but our allotted span varies, as does our sense of time at different ages. But perhaps most strikingly for me, is, third, how it is not just the amount of care provided in organised care but the sequencing of activities that acts to control the experience and quality of care. The disruption of usual or desired routines of the recipient by outside schedules is one of the most revealing incivilities of organisations apparently charged with providing care.

This sense of control written through control of schedules is one that echoes in Schwanen *et al.* paper. Here the patterning of nightlife is taken to look at who regulates the temporalities of the night time economy. The competition among different schedules and actors comes through in looking at which activities and which actors have to accommodate to the rhythms of others and which set the pace. The ability of younger residents to enjoy the city cuts across the timespaces of enjoyment for say families with young children. Here then separating timespaces is a matter of importance – zoning nightlife into different places. The transformation of cities at night and forms of temporal zoning into different rhythms and peaks of activity are well evidenced (Bromley, Tallon, and Thomas 2003). The texture of nightlife is temporally, spatially and socially variegated. This is a city of coordination but also disjuncture. Here then keeping apart can be part of the temporal-spatial ordering of the city. Their paper though shows how even apparent mixture and plurality can actually

mark out differential relations to specific timespace locales in terms of competing influences then of gender, age and ethnicity on patterns of inclusion and exclusion.

This papers look at the dynamism of societies on the move – not an urban geography of races mapped across space based on where people sleep. The city is shown as a lived zone of encounter, of evanescence with fluid, complexly patterned points of interaction that nevertheless have regularities and are regulated. Notably though these locales then are about interactions more of like-minded (and like-bodied) individuals than crossing social divides. In this sense Valentine and Sadgrove are right to ask us what we can infer from observing encounters in public places. They ask us to think about a sense of time as depth as inhabitation and endurance. In doing this they use a biographical sense of time to unpack the sedimented attitudes and dispositions that very often get summarised into social categories and identities in analyses. And they show that such categories are inevitably illfitting, leaving many of us with conflicted feelings, and tensions between expected performance now and previous upbringing. The paper brings us back to look at the self as defined as continuity over time sustained by memory and narrative. This is the biographical temporality so formidably developed by Paul Ricoeur (1991) where individuals are constituted by having disparate events drawn together in a narrative that renders them meaningful – adding causality to chronology. Here is a time of simply enduring that is marked out by its constancy, remaining self-same (*idem*), is rendered into a selfhood by the temporal grasping of future, past and change as a storied self (*ipse*). Self-constancy is a creation of the narrative weaving of our stories of our self, of our incorporating stories about us, of our acts as author, narrator and character.

This temporal depth and back story to our encounters is telling. Perhaps as telling might be the way Pierre Bourdieu (1984, pages 142, 326) coined the term ‘allodoxia’ for the sense of being out of time in the way we all know we can be out of place. Here our assumed coordinates of values and beliefs are rendered out of time and out of synch with the world in which we find ourselves. Here sedimented and habituated values betray us as we find the rules have changed. Such awkwardness, the resulting difficult changes that may be too little or too late are part of the temporal web through which we act. Sedimentation may also come through the clashing timespaces of carescapes and worksapes – where the apparent increase in mobility for work may only be possible because it is subtended by densely embedded and long term care relationships in a locality (Jarvis 1999). This then is spatial and temporal dislocation. Such are the gaps which the migrant in Rogaly and Thieme’s paper can seek to exploit and through which they are exploited. The temporary nature of their work is both a freedom from how their storied self and storied home plays out and also a vulnerability, as without weight and being transient they are more disposable. The spatial stories woven by people as they move between places over their lives then inflect both their habituated responses, their predispositions and the dispositions towards them. They reflect attempts to colonise the future – and failures of such attempts. Such freighting with the past is important to add to the everyday rhythms and movements of the city.

Interestingly in all the papers present a very human temporality. The time of things, and the role of things in timing life are rather more muted. There is a large literature on the biography of things and material cultures, their role in sustaining and shedding our memories and identities, providing the scaffold and the medium for expressing change and self constancy (for instance Leslie 2000; Gregson 2007; Stallybrass 1993; Marcoux 2001; Edensor 2012). More artefacts reflect and indeed create a seasonal temporality, and one that encodes and conflicts with the 'natural' sense of both annual and circadian cycles layering them with social and national symbols fixed to a less changeable calendar (Lindström 2007). Despite most urban planning, and academic accounts having a 'uni-seasonal' assumption, there are large fluctuations. City nightlife spills across streets and has different rhythms at different times of the year, and those vary in different places. In a northern city like Oulu in Finland there is an extreme range of day length and temperature range, that does not fit so many temperate assumptions of four equal seasons; on temperature grounds one might say winter has 160 days (November to April, mean daily temperature below 0C), summer 103 days (May to September, mean temperature over >10C) but spring and autumn only 50 or so. (Jauhiainen and Mönkkönen 2005, page 276). Artefacts figure though large in this experience, both as technologies to stabilise temporal usage over seasons where the shopping mall, as an artificial environment could be described as a kind of rhythm machine – producing a time and rhythm of commodity purchase by keeping climate, seasonal change, and daylight outside (Kärrholm 2009, page 426). On the other hand seasons are expressed through some objects such as seasonal fashions and commercial festivals like Christmas. Of course the commercial seasons of summer, autumn, Christmas, etc. do not coincide perfectly with their cultural or cosmological equivalents (Kärrholm 2009, page 430) when for instance 'large department-store chains launch their seasonal clothing at the same time everywhere in Scandinavia and Finland. This means that, for example, the spring clothes arrive at Oulunsalo two months before the snow melts and the department stores sell shoes with leather soles when the rain is turning into snow' (Jauhiainen and Mönkkönen 2005, page 280). Then we might have a sense of artefactual allodoxia, for declassified objects left behind by the tides of fashion that no longer sold at the 'right time' lose value (Bourdieu 1984, page 164).

There is also a literature on the role of artefacts and practices in organising and creating temporalities from the learnt practices of measuring time via clocks (Glennie and Thrift 2002; Postill 2002) through to diaries and time planning technologies be they analogue (Symes 1999) or digital (Lee 2003). Such devices have been vital to creating new kinds of time, enabling its control, colonising the future and commodifying time. If we look at the fragmented and multiplicitous timespaces of urban sociality what we find are not just the yearnings for human co-presence but also the mediated connection of people through devices that also shape temporal experience and time-use. Indeed multiple layers of media that remediate the timespace of the daily life through an open media ecology (Crang, Crosbie, and Graham 2007). We might revisit the patterning of nightlife in the company of one of the proliferating location based social network technologies that will tell us who of our acquaintances is where in the city, what they have checked out and where they have checked in. Or we might use an analytics application like CitySense that draws through the digital traces in our records as we move about the city to look at patterns of connection and movement and recommend the liveliest places for people with similar spatio-temporal patterns to ourselves. It claims to analyse the complexity of pathways through the city as 'dimensions' of places which are based on the movement of people in and out of that place over time and which places people visited

before and afterwards. It claims to attribute up to 487,500 dimensions to every place in a city to 'describe it completely' with a unique 'DNA'. Those traces and histories are being linked to meaningful encounters through algorithms. Far from a critical time geography for the academy this is a real time analytics as an aide to organising and coordinating our lives. The categories are not fixed and absolute but fragments of encounters accumulated and aggregated to provide a predictive guide based on other people's actions. These are then relative categories of identity, and places defined in terms relationships between each other that change in real time. These technologies are creating new forms of real time urbanism. They are also providing tools to control timespace and decide on who to meet and who to avoid. Furthermore they are commodifying our time, since what is being sold here is ourselves. It is our data, our digital persons who are being mashed up and aggregated. The timespace cartography is one that can be sold to various companies. Increasingly the commodification of city space is not just about spatial control, but also about a temporal control; about finding and capitalising on the existing rhythms of a place and enrolling new users to them. (Kärrholm 2009, page 422)

The critical examination of timespace opened out in this special issues thus beckons us to look at the stuff of time and space. The multiple dimensions and factors suggest that any given moment and place is conjunctural and determined by relationships that connect it to other times and places. It is not simply how large or how long, but also always what it is connected to that happened previously and what will follow after. It is about things happening in synch and out of synch. If urban rhythms seem to speak of discontinuous times and spaces then analysis also needs the continuities emphasised by biographies. It also needs the sense of hierarchical competition of clashing temporalities and looking to see whose time is dominant.

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